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## ABSTRACT OF THE DISCLOSURE

### Apparatus for controlling glass melting and/or refining furnaces

Device for controlling the melting of the glass batch in a glass melting furnace, which automatically carries out all or some of the set of operations for controlling the operating parameters of the furnace as well as all or some of the set of operations for operating the furnace actuators, on the basis of the strategies that an operator carrying out these operations manually would employ, this device comprising :

- an analysis and control device, of the fuzzy-controller type, using a control algorithm of the fuzzy-logic type which receives all the information relating to the operation of the furnace coming from the sensors and from the detection means provided on this furnace, as well as the set point values input manually by the operators, this control algorithm delivering control signals to the various actuators and control means of the furnace ; and
- a predictive system, of the neural- and/or fuzzy-type which, depending on the state of the furnace and on the information about the change in production over time, defines the various set point values to be assigned to all the furnace actuators, so as to ensure optimum operation for each production phase, the said set point values constituting input values for the fuzzy-logic algorithm which controls the furnace.